



**REMARKS/ARGUMENTS**

Reconsideration and withdrawal of the outstanding ground of rejection is respectfully requested in light of the above proposed amendments and the remarks that follow.

In paragraph 4 on page 5 of the Official Action, the Examiner states that the claim limitations regarding different radial properties at different radial locations on the rotor disk have not been given patentable weight because the recitation occurs in the preamble. By this proposed Amendment, applicants have amended independent claim 1 to use language similar to that found in the claim preamble in the body of the claim so that the preamble of the method cannot be ignored. Thus, claim 1 requires in step c) that the rotor disk be held as stabilization temperature of about 1550°F for a period of from about two to about four hours such that radially outer portions of the disk are exposed to said stabilization temperature for longer periods of time than radially inner portions of the rotor disk. In addition, following step f), the claim requires that creep and creep crack growth resistance are enhanced at radially outer locations of the rotor disk and strength is enhanced at radially inner locations of the rotor disk. It is now made clear that the invention resides in selecting certain stated heat treatment and cooling parameters in order to vary the properties of the rotor disk at different radial locations. This process is nowhere disclosed or suggested in the applied prior art.

The Examiner has also asserted that applicants have not established that the claimed cooling rates are in fact different from air cooling taught by the admitted known prior art.

It is respectfully submitted that the burden is not on applicants to demonstrate that the claimed invention is different from what is disclosed and taught in the prior art. Rather, the burden of proof is on the Examiner to establish prima facie obviousness with respect to the subject matter claimed. Moreover, applicants have claimed two very different cooling rates in

the claimed process, i.e., cooling the rotor disk to a temperature of about 500°F at a rate of from 1°F to 5°F per minute in step b) and cooling the rotor disk to room temperature at a rate of 20°F to 40°F per minute in step d). The cooling rate in step b) is considerably slower than a simple air cooling process and in order to achieve the rate, the furnace is programmed to cool at this much slower rate. The cooling rate in step d), on the other hand, is faster than simple air cooling. In any event, the cooling rates have been selected in combination with the other parameters specified in steps a), c) and e) to achieve the desired differential properties of the finished rotor disk.

The claimed process is nowhere disclosed or suggested in the applied prior art. Further in this regard, the Examiner's contends that one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the determination of the solution heat treatment time is disclosed by the prior art as commensurate to the size or the workpiece.

The above statement mischaracterizes the subject matter claimed. The parameters chosen by applicants are not based on the size of the workpiece; rather, as explained in the specification and as reflected in the claim language, the heating and cooling parameters are chosen and tailored according to the desired differential properties and the rotor disk.

For all of the above reasons, it is respectfully submitted that the acknowledged prior art discussed in the instant specification is not suggestive of the claimed subject matter and clearly insufficient to establish prima facie obviousness with respect to any of the remaining claims.

Since the amendments to the claims place the application in condition for immediate allowance, entry of the Amendment is fully consistent with 37 C.F.R. § 1.116(b).

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The application is now in condition for allowance, and early passage to issue is respectfully requested. In the event, however, any small matters remain outstanding, the Examiner is encouraged to telephone the undersigned so that the prosecution of this application can be expeditiously concluded.

The Commissioner is hereby authorized to charge any deficiency in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140.

Respectfully submitted,

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